

FLIGHT

The
AIRCRAFT
ENGINEER
&
AIRSHIPS

First Aero Weekly in the World.

Founder and Editor: STANLEY SPOONER

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport

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CONTENTS

| | PAGE |
|---|------|
| Editorial Comment | |
| Private Individuals to the Rescue | 377 |
| The Competitions of 1924 | 377 |
| Prague Aero Exhibition | 379 |
| The Aero Show at Prague | 380 |
| French Exhibits | 380 |
| German Exhibits | 383 |
| Progress in the Big Flights | 387 |
| Air Ministry Notices | 388 |
| Royal Air Force | 389 |
| R.A.F. Intelligence | 389 |
| Imperial Airways, Ltd. | 390 |
| Society of Model Aeronautical Engineers | 390 |

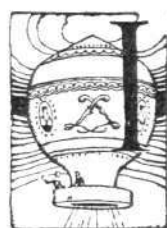
DIARY OF FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in the following list:—

1924

| | |
|-----------------|--|
| June 15 | Gordon Bennett Balloon Race, Belgium |
| „ 21 | F.A.I. Conference Opens, Paris |
| „ 24 | Independent Force (R.A.F.) 6th Annual Re-union Dinner at R.A.F. Club |
| „ 25 | R.N.A.S. and 5th Group, R.A.F., annual dinner |
| „ 28 | Royal Air Force Pageant, Hendon |
| July 24-Aug. 10 | Tour de France for Light 'Planes |
| July 26 | King's Cup Race |
| Aug. 4 | Aerial Derby at Lympne |
| „ 4 | Holiday Light Aeroplane Handicap at Lympne |
| Sept. 8-13 | Light 'Plane Competitions at Lympne |
| Oct. 2 | Aero Golfing Society. Autumn Meeting, at Moor Park Golf Club, for A.G.S. Challenge Cup presented by Cellon (Richmond) Ltd. |

EDITORIAL COMMENT.



It being quite obvious that we cannot expect any help from the Air Ministry, how is it going to be possible to hold any races at all this year? The answer is partly provided by the statement of the manner in which the Racing Fund of the Royal Aero Club has been supported by private individuals recently, and the setting out of how it is intended to allocate some of the money thus available. Mr. Samuel Samuel has very generously subscribed a donation of £1,000, Sir Charles Wakefield has added £500, Lieut.-Col. Frank McClean has given £100, and Sir Basil Zaharoff has, with great modesty, given £21. These gentlemen deserve the thanks of all interested in sporting aviation, and without their generous assistance we should probably have had no air racing at all this summer. At the same time, the amounts do not total sufficient to enable the Royal Aero Club to offer any but very modest prizes. Thus, for the Aerial Derby £575 has been set aside; for the King's Cup Race, £300; for the Schneider Cup Race, £250; for the Light 'Plane Handicap Meeting on Aerial Derby Day, £125, and for the Grosvenor Cup, £50. Without a great deal of sporting spirit on the side of constructors there is scarcely sufficient encouragement in these amounts to ensure really good entries lists. The races contemplated vary quite a good deal in character, and there should be something to suit every taste. Will not some other lovers of sporting flying come forward and add their contribution? There need, as will be seen, be no fear of aircraft constructors avariciously reaping a rich harvest out of prize money, but the almost insufferable burden of building racing machines might be somewhat alleviated with a little more generous support.

The
Competitions
of 1924

In case these lines should meet the eye of anyone willing to give practical encouragement to sporting aviation, but who is not quite certain as to the nature of the various competitions to be held during

the coming summer and autumn, it may be of assistance if we briefly outline the aims and objects of some of the more important fixtures, leaving it to the judgment of potential donors to decide whether or not the splendid example set by the donors mentioned in the previous paragraph is worth following. In any case it should be remembered that all the flying races and competitions are being held under the racing rules of the Royal Aero Club, which is the institution governing all sporting flying in Great Britain, and that therefore any gifts that it may be intended to present should be allocated after consultation with the Royal Aero Club.

On Saturday, June 28, there will be held at Hendon the Fifth Royal Air Force Aerial Pageant. This meeting is purely a service affair organised by the Royal Air Force, the various "events" being carried out by R.A.F. personnel on service machines. The proceeds, it should be pointed out, are devoted to charities in connection with the R.A.F. It will be well to recall that no aviation meeting held in this country, nor probably in the world, is better organised, while the displays given are unequalled for their spectacular quality. Nowhere is it possible to witness better flying, and it may be stated that representatives of many foreign air services, governments, etc., always make a point of being present in order to study the methods of organisation and the latest forms of "stunt" flying, squadron drill, formation flying, etc. It will thus be seen that although the meeting is of a very exceptional character everyone interested in aviation is free to help, not by offering prizes, but by visiting the Hendon Aerodrome on the day of the Pageant. Apart from seeing probably the best flying "show" on earth, there is the great satisfaction of knowing that one is helping a very worthy cause.

The next flying event in Great Britain is the King's Cup Race for a Challenge Cup presented by His Majesty the King, and for a first prize of £100 presented by Mr. Samuel Samuel, and a second prize, also of £100 presented by Sir Charles Wakefield. It had been intended this year to make the race for the King's Cup a seaplane race, and it was hoped that the Air Council would have allowed service machines to take part. This, however, the Air Council has not agreed to do, and as there are very few privately owned seaplanes it is to be feared that but few machines of this type will take part. It has since been decided to open the race to machines of all types, whether aeroplanes, seaplanes, flying boats or amphibians, and to hold the race on July 26. The aeroplanes will start from Martlesham Heath and the seaplanes from Felixstowe Air Station, while amphibians may start from either place. All machines will be started at 5.30 a.m., and the race will be a handicap on a time allowance basis for the whole course. The course totals approximately 950 miles, and turning points are at Leith, Dalmeir and Falmouth, with finish at Lee-on-Solent. Competitors

are at liberty to follow any route they choose, provided they properly round the prescribed turning points. It is to be feared that as there is no telling where the different competitors will pass over, apart from the three turning points, public attention to the race must be very limited, more especially as by starting the machines at the same time it will be quite impossible for the general public to appreciate who is winning. Not even by being present at Lee-on-Solent can one form any idea, as the handicap allowance will have to be deducted from the actual flying time before the winner can be declared. The order of arriving at the finishing line will be no guide. The arrangement chosen seems about as little calculated to stimulate public interest as possible.

On August 4 the Aerial Derby will be held at Lympne in Kent. This race is the British speed race of the year, and is of international character, although the amounts available for prizes have hitherto been rather too small to attract competitors from abroad. This year it is intended to award prizes to the amount of £575 for this race, but even so this is scarcely enough to ensure participation from France, which is of course the country most likely to enter machines. Time is getting very short, but prompt action in increasing the prizes to at least £1,000 would probably still have the effect of bringing over some of the famous French pilots and machines that would really give the race the interest it deserves. On the same day, and at the same place, as the Aerial Derby, there will be a race for light 'planes, limited to an engine capacity of 1,100 c.c. £125 has been allocated to this race from the R.A.E.C. Racing Fund, but a few more prizes would be welcomed. Probably most of last year's light 'planes, and a few of this year's models, will be entered.

A light 'plane meeting, under the racing rules of the R.A.E.C., for prizes of more than £3,000 offered by the Air Ministry and by private individuals, will be held at Lympne from September 8 to September 13. This competition, however, is already assured of ample financial assistance, and more good might be done by extra donations to some other meeting for light 'planes, to be decided upon in consultation with the Royal Aero Club.

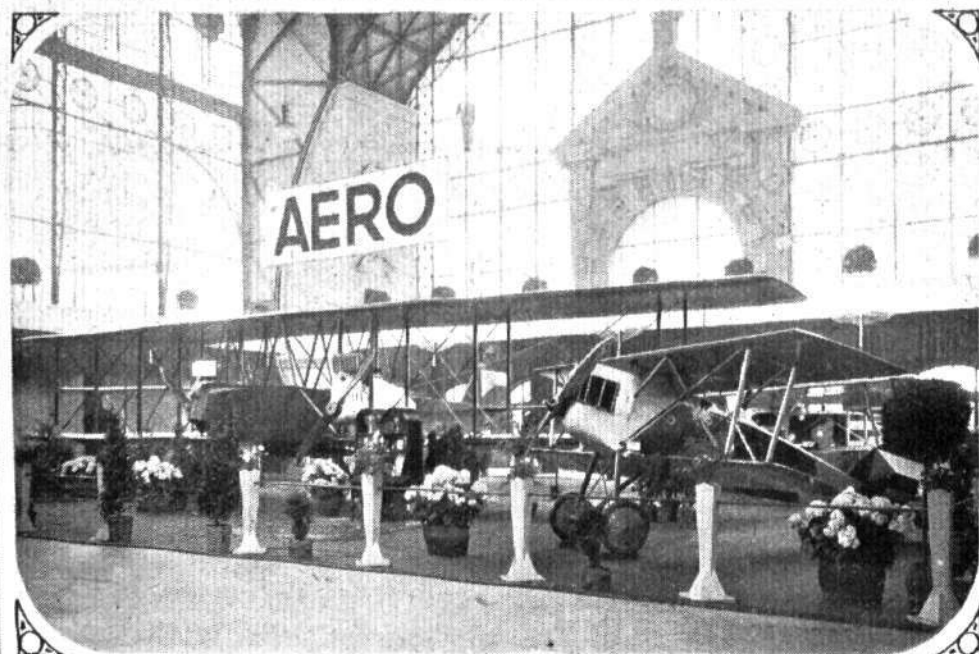
In October the race for the Schneider Cup will be held at Baltimore, U.S.A., the Cup having been won by the Curtiss-Navy racer at Cowes last year. It has been decided to enter machines by Great Britain, but as the expenses of so doing are very great any financial assistance forthcoming would be welcomed, and might help materially towards bringing this much-coveted seaplane trophy back to Great Britain.

It will be seen that there are many meetings and competitions worthy of support, and we sincerely trust that the Racing Fund of the Royal Aero Club may receive such financial help as to make this summer's races the finest ever held in Great Britain.

The Royal Aero Club and the R.A.F.

We would remind readers that the Royal Aero Club admits officers of the R.A.F., R.A.F. Reserve and Air Ministry departments to full membership without entrance fee at the normal annual subscription of two guineas. Not only is the R.A.E.C. not in competition with the R.A.F. Club, but rather the reverse, dealing as the Royal Aero Club does with the sporting side of aviation, and therefore

promoting air races and various competitions. Thus progress in machines, engines and equipment is continually being pushed onwards, and every advance must tend to the practical improvement in machines, to the advantage of the Air Force. By supporting the Royal Aero Club, therefore, officers of the service are giving support to themselves by helping forward the best propaganda work. From an interest in sporting flying it is but a short step to general interest in the Royal Air Force.



FOUR GENERAL VIEWS FROM THE THIRD INTERNATIONAL AERO EXHIBITION AT PRAGUE: Of the two views on the left the upper shows the "Aero" stand, while below is seen the "Avia" B.H. 9. The upper right-hand photograph shows the British stand, with the "Avro-Lynx" on the left and the Blackburn "Dart" on the right. In the foreground of the lower picture is seen the 1,000 h.p. Napier "Cub," the largest aero engine in the world.

THE THIRD - AERO SHOW AT PRAGUE - INTERNATIONAL

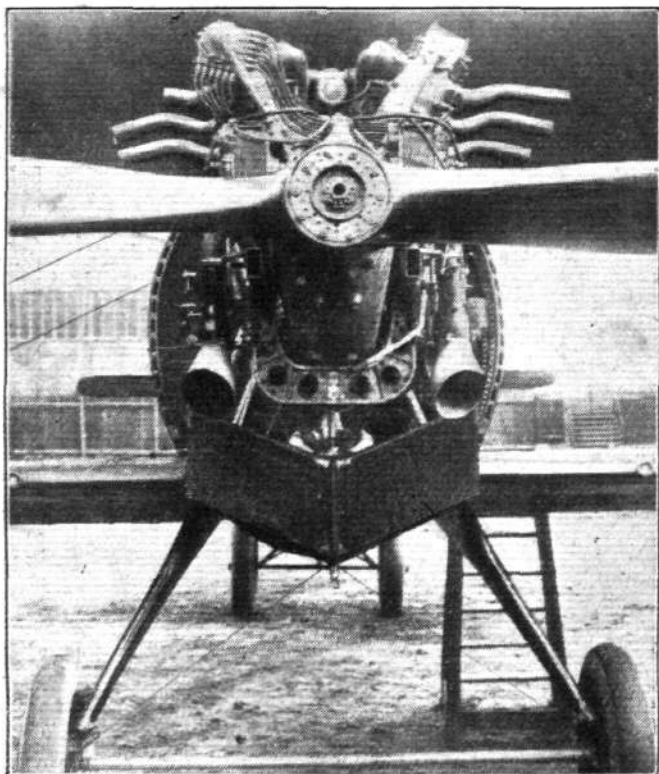
[LAST week we were able to publish general descriptions of all the Czechoslovak aeroplanes exhibited at the Third International Aero Show, which closed on Monday of this week. We were also able to publish silhouettes of nearly all the machines exhibited, with the exception of a few that arrived rather late at the Show. Of these we give silhouettes this week. The general descriptions of the French and German machines, illustrated where possible with photographs, will be found in the following pages, and next week we hope to conclude our Prague Aero Show report with sketches of constructional details of such machines as appear to merit a detailed description. It should be realised that many of the machines exhibited were of types that have already been described and illustrated in *FLIGHT*, and of such it is not intended to give detailed reports. The general descriptions and data should give sufficient information to enable our readers to form an opinion as to the merits of any given type, and the more novel machines will, as already stated, be dealt with next week.—Ed.]

THE FRENCH EXHIBITS

LOUIS BREGUET.

THE Breguet exhibit consists of one of the type XIX sesqui-plans, now world famous on account of the remarkable flight made by Lieut. Pelletier d'Oisy on one of these machines from Paris to Shanghai during his attempt to reach Tokio. It is a reconnaissance machine of all-metal construction, fitted with a 370-400 h.p. Lorraine-Dietrich or a 450 h.p. Renault engine. The fuselage is constructed of detachable duralumin tubes of a special type forming the longerons, and in place of the usual struts, formers of lattice girder construction—stamped from flat sheet—are employed.

As indicated above, the Breguet XIX has a large top plane and a smaller lower plane, both separated by single I inter-plane struts built up of duralumin. The top plane, which is set at a dihedral angle and is slightly swept back, is supported on the fuselage by an enclosed vertical cabane or panel to which the wing-roots are attached.

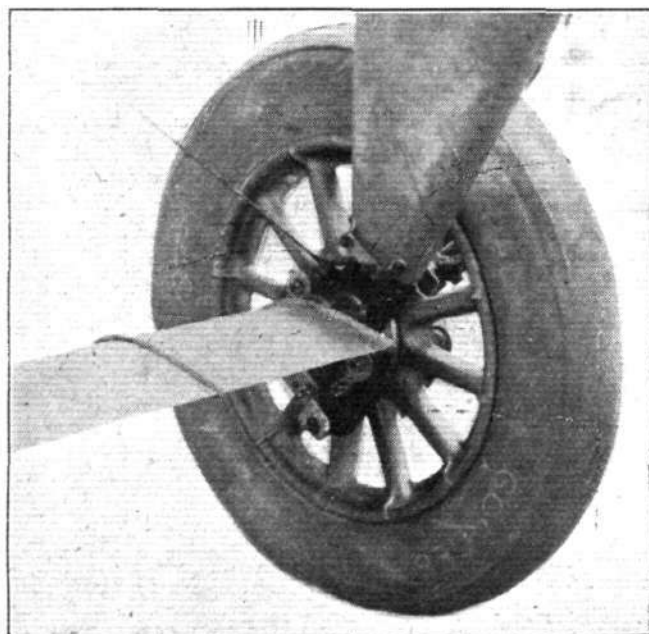


Front View of the Breguet XIX, showing mounting Lorraine-Dietrich engine. Note the André retractable radiator.

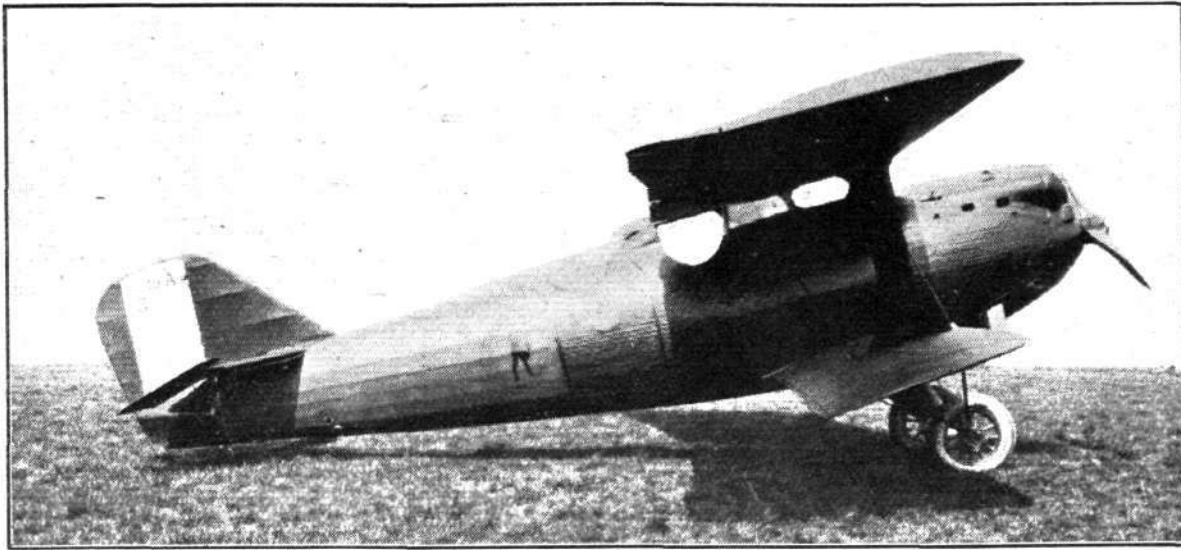
The lower plane, which is without dihedral, is in two sections, each being attached to wing-roots on the fuselage by bolt-and-pin points. Ailerons are fitted to the top plane only. Duralumin is mainly employed in the construction of the main planes, which are fabric covered. The horizontal stabilising plane is adjustable as regards incidence during flight. Rudder and elevator are unbalanced.

The landing gear, as may be seen from one of the accompanying detail views, consists of two single struts, carrying at their ends the axle, sprung by rubber cord. The chassis struts are braced transversely by wires.

A tubular framework supports the engine in the fuselage, and all the members of this engine support are assembled by means of bolts and nuts. The radiator is of the Breguet type, with Gaupillat tubes, moving in and out of the fuselage for the purpose of regulating the temperature. Principal characteristics: span (top), 14·830 m. (48 ft. 11 ins.); span (lower), 11 m. (36 ft. 4 ins.); overall length, 9·510 (31 ft. 5 ins.); wing area, 50 m.² (538 sq. ft.); weight, empty, 1,250 kgs. (2756·25 lbs.); useful load, 831 kgs. (1832·3 lbs.); weight (laden), 2,081 kgs. (4588·6 lbs.); speed, 235 km. per hr. (145·7 m.p.h.); ceiling, 7,000 m. (23,100 ft.).



One side of the undercarriage of the Breguet XIX. Note the single strut undercarriage, the streamline axle fairing, and the Artillery type wheel instead of the usual wire-spoke type.



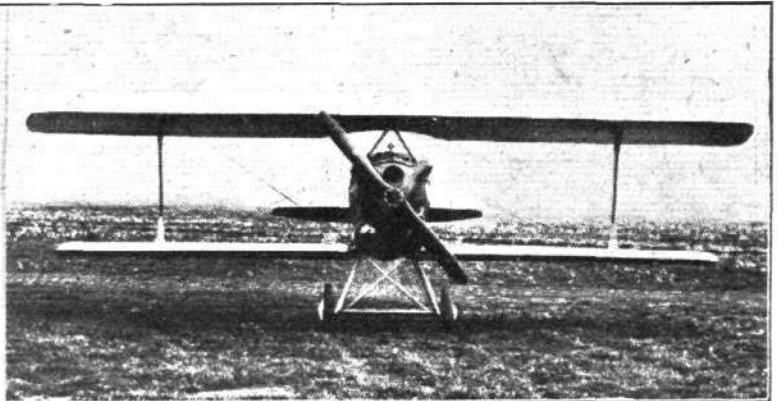
THE BREGUET XIX, 400 H.P. LORRAINE-DIETRICH ENGINE : This actual machine was used by Lieut. Pelletier d'Oisy on his flight to the East.

BLERIOT-SPAD.

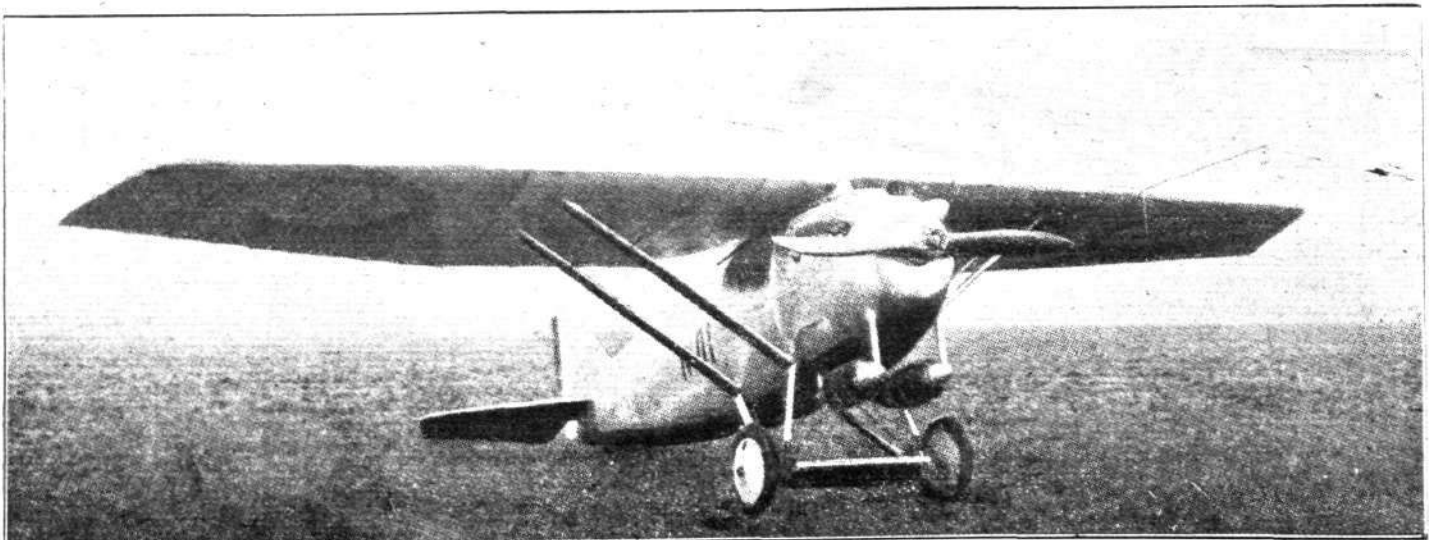
THE Blériot-Spad exhibit at Prague is one of the type 81 C.1 Scouts. This is a single-seater biplane fitted with a 300 h.p. Hispano-Suiza engine. The fuselage is well-streamlined, of elliptical cross-section, and is built up of layers of three-ply tulip wood, rolled and crossed over one another and covered with fabric. The engine section consists of two ply-wood spars supported by an arrangement of tubular steel and duralumin. In the lower part of the fuselage are two duralumin struts, to which are attached the bottom planes and the landing chassis. The top plane is in two sections, and is attached to a vertical panel, consisting of four steel tubes

enclosed in an aluminium fairing, extending upwards from the fuselage. The lower plane, also in two parts, is attached to small wing-roots formed integral with the fuselage by the struts previously referred to.

Upper and lower planes are built up on two rectangular duralumin spars, braced by duralumin tubes and steel wire, while the ribs are of pressed duralumin. The top plane is staggered forward 35 cm. (17½ ins.). Upper and lower planes are separated by a single I-strut on each side of the fuselage. This strut is built up of duralumin, reinforced at the ends and attached to the wing spars by articulated joints. External bracing is of the usual lift and landing wires.



Two views of the Blériot-Spad 81 C.1, 300 h.p. Hispano-Suiza engine.



THE DEWOITINE MONOPLANE, 300 H.P. HISPANO-SUIZA ENGINE : The machine actually exhibited at Prague is fitted with the new type Lamblin radiators mounted on the struts of the undercarriage.

The tail surfaces are of spruce, covered with ply-wood, the horizontal stabilising surface being in one piece, passing right through the fuselage, to which it is attached by riveted angle-pieces.

The landing chassis consists of two pressed duralumin bearers or struts, in the lower ends of which are formed rectangular channels receiving the axle guides. The main petrol tank is located between the engine and the pilot's cockpit, and is detachable during flight. An auxiliary tank is mounted in the upper plane. Cooling is by two Lamblin radiators mounted on the fuselage below the engine. The principal characteristics of the Spad 81 C.1 are: Span (top), 8.804 m. (29 ft.); span (lower), 6.400 m. (21 ft.); wing area, 30 sq. m. (322.8 sq. ft.); weight, empty, 800 kgs. (1,760 lbs.); useful load, 450 kgs. (990 lbs.); wing loading, 41.600 kgs./sq. m. (8.5 lbs./sq. ft.); power loading, 4.160 kgs./h.p. (9 lbs./h.p.); speed, 250 km. per hour (155 m.p.h.); ceiling (full load), 8,000 m. (26,400 ft.).

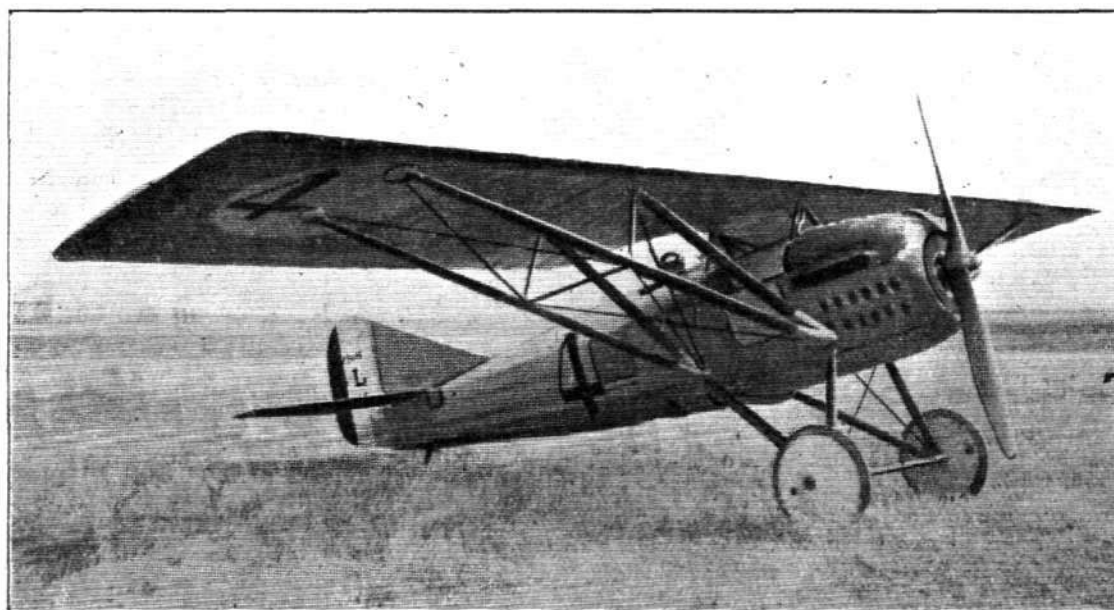
DEWOITINE.

THE Dewoitine exhibit is an all-metal parasol monoplane, type D.1, fitted with a 300-h.p. Hispano-Suiza engine, and intended for scouting work. Its fuselage is constructed entirely of duralumin, being built up of four main spars, and secondary struts, of semi-circular or U section. The covering is also of duralumin. A thick section semi-cantilever wing is employed, being supported in the centre a short distance above the fuselage by a short vertical panel, or enclosed cabane, while two pairs of struts extend from the lower longerons of the fuselage up to the wing spars at a point

type, fitted with a 180 h.p. Hispano-Suiza engine. The main plane, which is without dihedral angle, is rigidly supported above the fuselage by eight steel struts, two pairs each side. The forward struts on each side are attached to the lower longerons of the fuselage at the point of attachment of the front chassis struts, while the rear struts are also attached to the lower longerons at the rear chassis strut attachment. One pair of these struts, front and rear, are taken to points on the front and rear spars respectively of the main plane, a short distance from the wing tips. The other pairs of struts are taken to points on the front and rear wing spars midway between the first strut attachments and the centre of the wing. This latter part of the wing is supported by two short inverted V-pylons from the fuselage.

This wing-strut arrangement is further braced by wires and by steel tubes, the latter connecting the inner strut attachments (on the wing) with the centres of the outer struts. A cross tube further connects the front and rear struts at their centres.

The fuselage is of rectangular girder construction, built up entirely of metal. It consists of four tubular longerons, the upper ones of steel and the lower ones of duralumin, and tubular cross members. Light formers and stringers give the whole fuselage a good streamline form. The engine is carried in a "cradle" built up of pressed duralumin. The pilot's cockpit is located near the trailing edge of the wings, a portion of the latter being cut away to provide a clear vision upwards. A circular radiator, encircling the propeller shaft, is mounted in the nose of the fuselage.



The Gourdou-
Leseurre Mono-
plane, 180 h.p.
Hispano-Suiza
(engine.)

midway between the centre and the tips of the wings. The wings taper, both in thickness and chord, toward the tips, and the ailerons, which are unbalanced, are of high aspect ratio.

The horizontal tail surface, which is comparatively small, is built up of two spars and two duralumin tubes which serve as ribs. Its angle of incidence can be varied during flight. The landing gear is of the V-type, of duralumin, carrying a divided duralumin axle. It is provided with a patent shock-absorbing device. Two duralumin V's, and four tubes connected to the first truss of the fuselage, support the engine, which is fitted with a Letombe starter.

Petrol is fed by two A.M. pumps, the petrol tank being located between the pilot's cockpit and the engine, from which it is separated by a duralumin bulkhead. The new 1924 Lamblin strut-radiators are fitted.

This machine was purchased by the Minister for National Defence for Czecho-Slovakia.

The principal characteristics of the Dewoitine are: Span, 11.500 m. (37 ft. 9 ins.); overall length, 7.550 m. (25 ft.); wing area, 20 m.² (215.2 sq. ft.); weight of machine, empty, 820 kgs. (1,808 lbs.); useful load, 420 kgs. (924 lbs.); total weight, 1,240 kgs. (2,734 lbs.); wing loading, 62 kgs./sq. m. (12.7 lbs./sq. ft.); power loading, 4.150 kgs./h.p. (9.15 lbs./h.p.); speed, 250 km. per hour (155 m.p.h.); ceiling, 9,000 m. (29,700 ft.).

GOURDOU-LESEURRE

THE machine exhibited by C. Gourdou and J. Leseurre, of St. Maur (Seine), is a chaser monoplane of the "Parasol"

The principal dimensions, etc., of this machine are:—Span, 9.600 m. (31 ft. 7 ins.); length, 6.430 m. (21 ft. 2 ins.); height, 2.3700 m. (7 ft. 10 ins.); wing area, 18.8 sq. m. (201 sq. ft.); weight empty, 660 kgs. (1,455.3 lbs.); useful load, including fuel 300 kgs. (661.5 lbs.); total weight, 960 kgs. (2,116.8 lbs.); speed, 248 km. p.h. (153.7 m.p.h.); ceiling, 7,500 m. (24,750 ft.).

HENRY POTEZ.

THIS firm, although but comparatively recently established—having succeeded the "S.E.A." Company of the War period—has produced quite a number of successful machines of various types. They are exhibiting at Prague a reconnaissance machine, type XV.A.2, fitted with a 370 h.p. Lorraine-Dietrich engine. In general design, this machine is of the orthodox fuselage-tractor biplane type. Upper and lower planes are of equal span, the top plane being in three sections—two outer ones attached to a smaller centre section. The lower plane is in two sections, each attached direct to the lower longerons of the fuselage. Upper and lower planes are separated by four pairs of duralumin struts, and the external bracing is by streamline "wires."

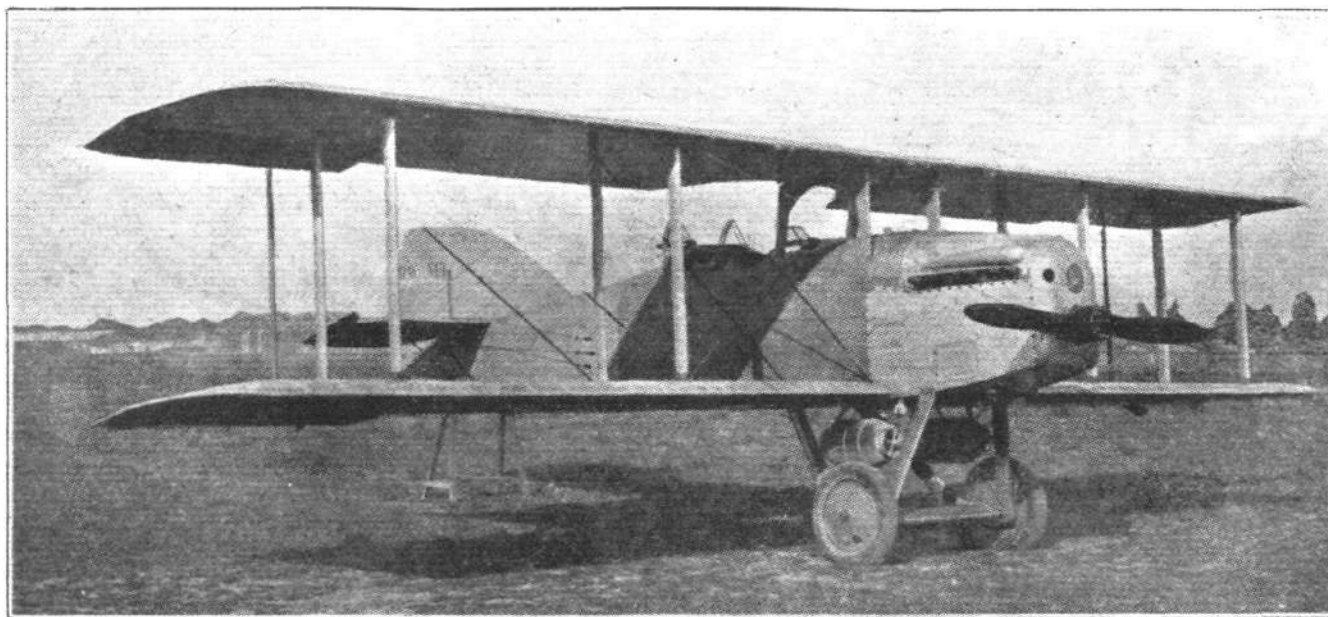
The main spars of the double-T type, in spruce, and the ribs are built up of plywood webs and flanges of *grisard*. The whole wing-frame is braced by spruce cross members and steel wire. Ailerons are fitted to upper and lower planes, and are balanced by small extensions projecting outwards. The control acts on the lower ailerons, and is transmitted to the upper ailerons by streamlined struts. The

ailerons are hinged to auxiliary spars behind the rear main spars.

The fuselage is of rectangular-section girder construction. The forward or engine portion is built up of four solid ash longerons, struts and cross members and four transverse members forming the engine housing; the front and rear transverse members are of sheet steel, and the intermediary ones of plywood. The central part of the fuselage, containing the pilots and observer's posts, is formed by continuations of the ash longerons, but in this case the latter are channeled and the sides of the fuselage strengthened with

ribs. The elevators and rudder are balanced by means of triangular extensions, for which portions of the tail plane and vertical fin respectively are cut away. Dual control is fitted.

The landing gear is of the V-type, the V's being built up of glued wood laminations. The lower extremities of the V's are connected by two cross members, one in front and one behind the steel axle, over which is a fairing. Front and rear chassis members are cross-braced by steel wires, as are the two cross members. The tail skid is of ash, and is pivoted. Cooling is by two Lamblin radiators, mounted on the landing chassis.



The Henry Potez type XV Observation Biplane, fitted with a 370 h.p. Lorraine-Dietrich engine.

plywood. The remainder of the fuselage, which is fabric covered, is built up of spruce. The usual steel wire bracing is employed in the fuselage. Two ash bearers, mounted on the four transverse frames referred to above, carry the engine.

Provision is made for adjusting the incidence of the horizontal stabilising surface, but not during flight. It is of rectangular plan-form, built up of spruce spars and plywood

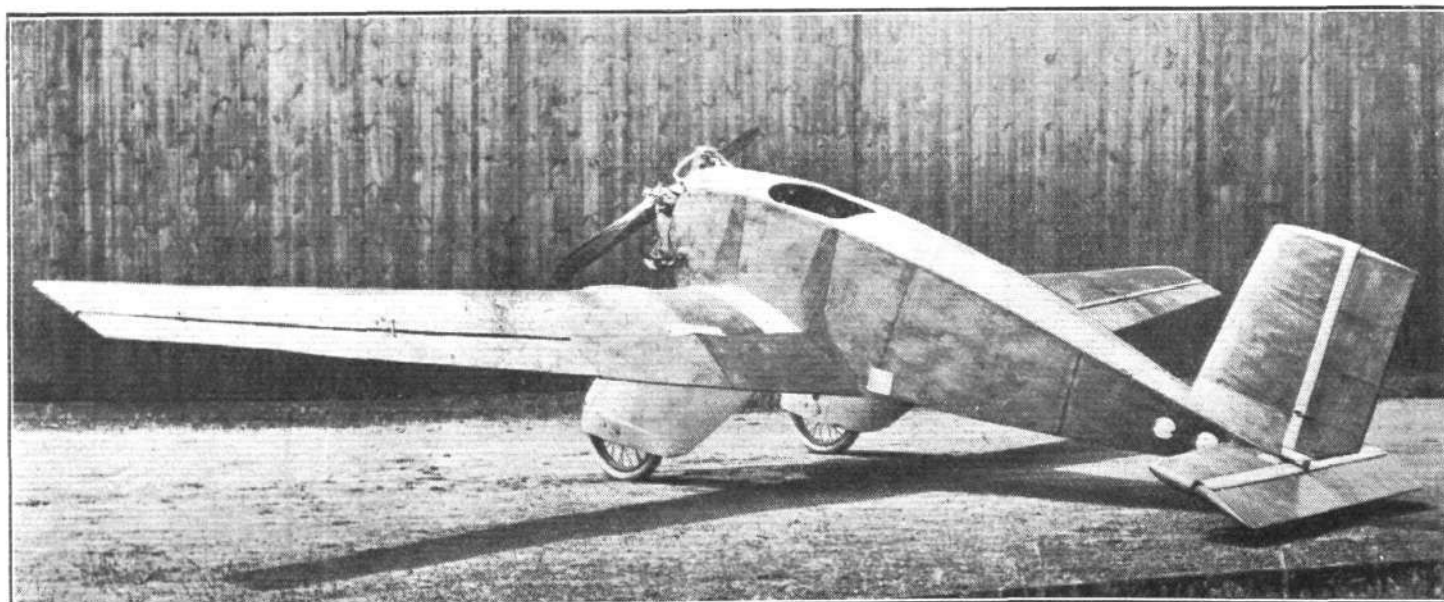
The main dimensions, etc., are:—Span, 12.700 m. (41 ft. 11 ins.); o.a. length, 8.640 m. (28 ft. 6 ins.); wing area, 45 sq. m. (481.5 sq. ft.); weight, empty, 1,250 kgs. (2,756 lb.); useful load, including fuel, 615 kgs. (1,356 lb.); total weight, 1,865 kgs. (4,112 lb.); wing loading, 41 kgs./sq. m. (8.4 lb./sq. ft.); power loading, 4.650 kgs. (10.25 lb.)/h.p.; speed, 200 km.p.h. (124 m.p.h.); ceiling, 6,200 m. (20,400 ft.).

THE GERMAN EXHIBITS

ALBATROSWERKE, BERLIN-JOHANNISTHAL

LAST year the German pioneer firm, the Albatroswerke, of Berlin-Johannisthal, was prevented from exhibiting at Gothenburg, although stand space had been taken. This year, fortunately, it was found possible to exhibit two machines at Prague, while a third was flown from Johannisthal

to the Kbely aerodrome at Prague, and there gave demonstration and passenger flights during the exhibition. This machine was the commercial monoplane, the "L.58," which was described and illustrated in *FLIGHT* of October 12, 1922, while general arrangement drawings were published in our issue of December 9, 1920. The "L.58" is a high-wing



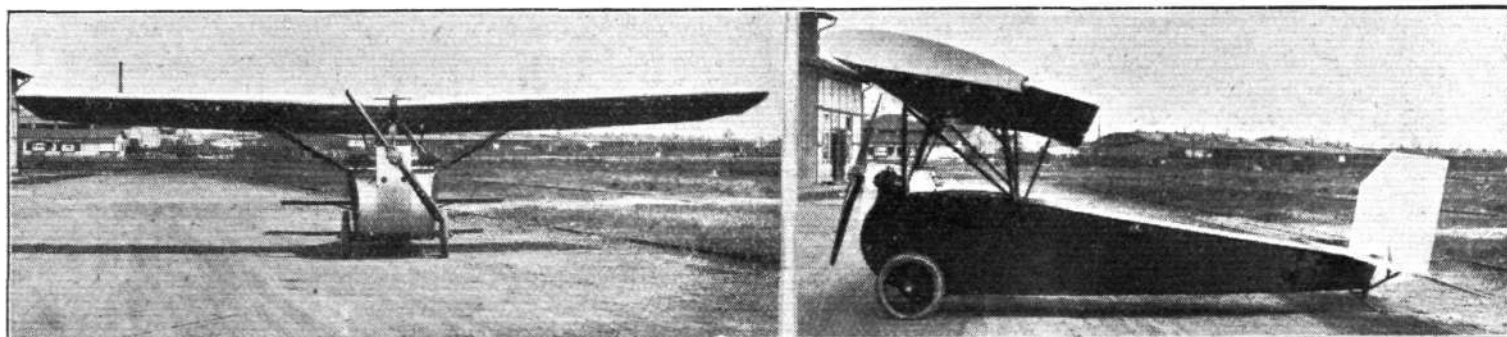
The Albatros "L. 59/60" is produced in two slightly differing types. The "L. 59" is a single-seater with five-cylinder Siemens radial engine, while the "L. 60" is a two-seater and is fitted with 7-cylinder Siemens radial. The type exhibited was the "L. 60."

monoplane, with the pilot placed in front of the wing and the passengers seated in an enclosed cabin below the wing.

One of the two machines actually exhibited at Prague was the "L.59/60," which is produced in two types, the "59" being a single-seater with five-cylinder Siemens radial air-cooled engine, while the type "60" is similar in general appearance and dimensions, but has accommodation for one passenger. The engine of this type is a 7-cylinder Siemens radial air-cooled. The machine shown was a two-seater, i.e. the type "L.60," of all-wood construction. The two seats are staggered in relation to one another, the pilot's being on the port side and nearest the engine, where his view is very good in a forward direction. The "L.60" is a monoplane of the low-wing type, and in order to facilitate transport the wing is built in three sections, of which the centre-section remains in place on the fuselage, while the two end

the result is, as in so many cases where these are first considerations, not particularly pleasing to the eye. It does not, of course, follow that the machine is not quite a good one aerodynamically, although the great amount of strutting employed in attaching the monoplane wing to the fuselage must offer a not inconsiderable resistance. On the other hand, the undivided wing is probably fairly efficient, although the square and very deep wing-tip ribs do not look particularly efficient.

Constructionally the Albatros "L.66" is chiefly remarkable for the fact that, as distinct from all previous Albatros machines, it is largely of metal construction. Hitherto this firm has made rather a speciality of all-wood construction, the Albatros fuselages having been ply-wood covered structures since several years before the War. In the "L.66," however, steel-tube construction has been employed, and



TWO VIEWS OF THE ALBATROS "L.66" LIGHT MONOPLANE: The engine shown is the Haacke, used in the early experiments, and it is stated that an engine of 30-40 h.p. will be fitted, of any type desired by the purchaser.

sections are removable. The undercarriage is in the form of two "trousered" legs, attached to the centre-section of the wings in order to give a wide wheel track. Each leg is enclosed in a large fairing, not unlike the Aachen glider seen at Itford in 1922. The engine is a 7-cylinder Siemens radial developing 75-80 h.p. The main dimensions of the Albatros "L.60" are: Length o.a., 5.40 m. (17 ft. 8 ins.); wing span, 10.30 m. (33 ft. 10 ins.); wing area, 10 sq. m. (107.6 sq. ft.). The weight of the machine empty is 369 kgs. (812 lbs.); pilot and passenger, 150 kgs. (330 lbs.); petrol and oil, 81 kgs. (178 lbs.); total loaded weight, 600 kgs. (1,320 lbs.). Power loading, 16.5 lbs./h.p.; wing loading, 12.3 lbs./sq. ft. The maximum speed is given as 165 km./h. (102.5 m.p.h.), and the climb to 1,000 m. (3,300 ft.) occupies 8 minutes. No figures relating to the landing speed are available, but, in view of the high wing loading, this must be fairly high, although a high-lift wing section is used.

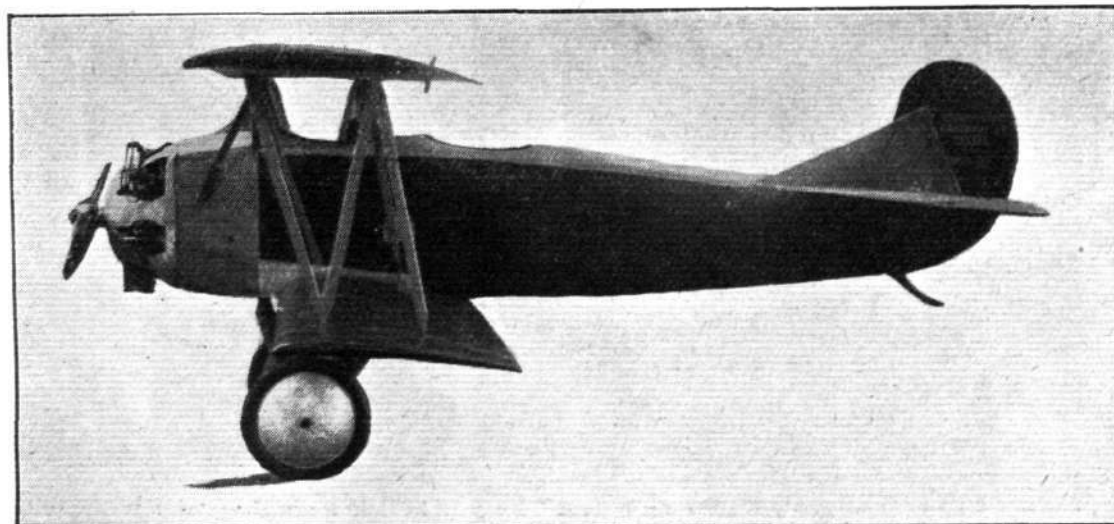
The "L.66" is a type between the low-power sporting type and the light 'plane, as the term is understood in this country. As will be seen from the two views published herewith, the "L.66" is a parasol monoplane two-seater, with a horizontally opposed air-cooled two-cylinder engine mounted in the nose. Simplicity and low cost of production are, obviously, the objects aimed at by the designers, and

welding of struts to longerons, much after the style of the Fokker fuselages. Bracing is by wire, and the covering is ordinary doped fabric.

The two seats are placed side by side, and if it is desired to use the machine for school work the controls can be duplicated. The usual stick and foot-bar controls are fitted, and present nothing out of the ordinary. The rudder and tail skid are, however, interconnected so as to enable the machine to be easily steered when taxiing at low speed.

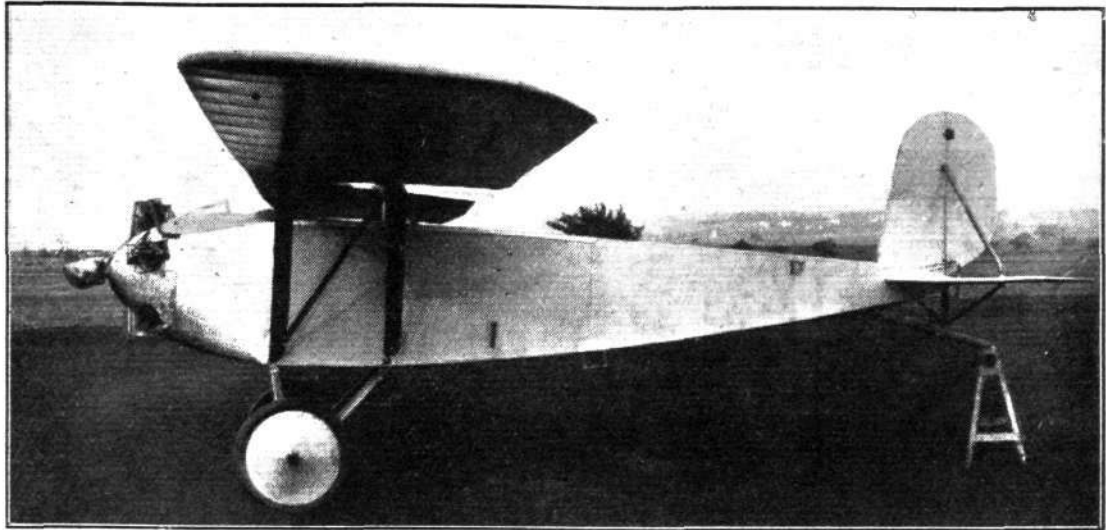
The power-plant of the machine exhibited was a 30 h.p. Haacke, but other engines can be supplied if desired. The engine is mounted slightly above the nose of the fuselage, and behind it is the oil tank, enclosed in a fairing which carries the instrument-board. The under-carriage is a simple axle with two wheels slung inside the fuselage, through the sides of which the axle projects. Rudder and elevator are both balanced, and there is neither fixed vertical fin nor tail plane.

The monoplane wing, which has a considerable dihedral angle, is of ordinary wood construction, and is, as already pointed out, mounted on a rather elaborate system of struts. The petrol tank is contained in the centre of the wing so as to give direct gravity feed. The ailerons have their leading edge working in a semicircular channel on the rear



The Dietrich-Gobiet "D.P. Ila" is a two-seater biplane with Siemens radial engine.

The Dietrich-Gobiet "D.P. VII A" parasol monoplane with Siemens radial engine.



face of the rear spar. We have not been able to obtain particulars of the overall dimensions of the machine, but when the wing is unshipped and placed along the fuselage the overall dimensions of the machine folded are approximately 5.5 m. (18 ft.) in length; height, 2.2 m. (7 ft. 3 ins.); width, 1.2 m. (4 ft.). The weight of the machine empty is 220 kgs. (484 lbs.), and the useful load, consisting of pilot and passenger and 33 litres of petrol, is 175 kgs. (385 lbs.), bringing the total loaded weight up to 395 kgs. (869 lbs.). As the wing area is 13.5 sq. m. (145.5 sq. ft.), the wing loading is just under 6 lbs./sq. ft. The maximum speed is given as 100 km./hrs. (62 m.p.h.), and the climb to 1,000 m. (3,300 ft.) occupies approximately 15 minutes. The duration is three hours at full power.

DIETRICH-GOBIET FLUGZEUGWERK, CASSEL

Two machines were exhibited by this firm, the "D.P.IIA" being a biplane with Siemens radial engine, and the "D.P.VIIA," a parasol monoplane with a similar engine.

The "D.P.IIA" is a two-seater school machine. Originally the machine was a biplane with pure cantilever wings, but as exhibited a pair of N struts had been added, probably mainly to stiffen the wings against torsional loads, as there is no external wing lift bracing. The fuselage is of welded steel tube construction, very similar to the Fokker machines, and is covered with fabric, except the front portion near the engine, which is covered with aluminium. The wings are of usual wood construction, and the top plane only is provided with ailerons (balanced). The top plane is supported from the fuselage on each side by a steel tube tripod to the front spar and a single strut to the rear spar, exactly as in the well-known Fokker "D.VII." The seven-cylinder Siemens engine, of 75-80 h.p., is mounted on a steel structure in the nose of the fuselage, and is cowled-in all except the cylinder heads. The pilot and passengers are placed in tandem, the pilot occupying the rear seat, so that the presence or absence of a passenger does not affect the trim of the machine. The main dimensions of the "D.P.IIA" are: Length, o.a., 5.9 m. (19 ft. 5 ins.); wing span, 7.2 m. (23 ft. 7 ins.); wing area,

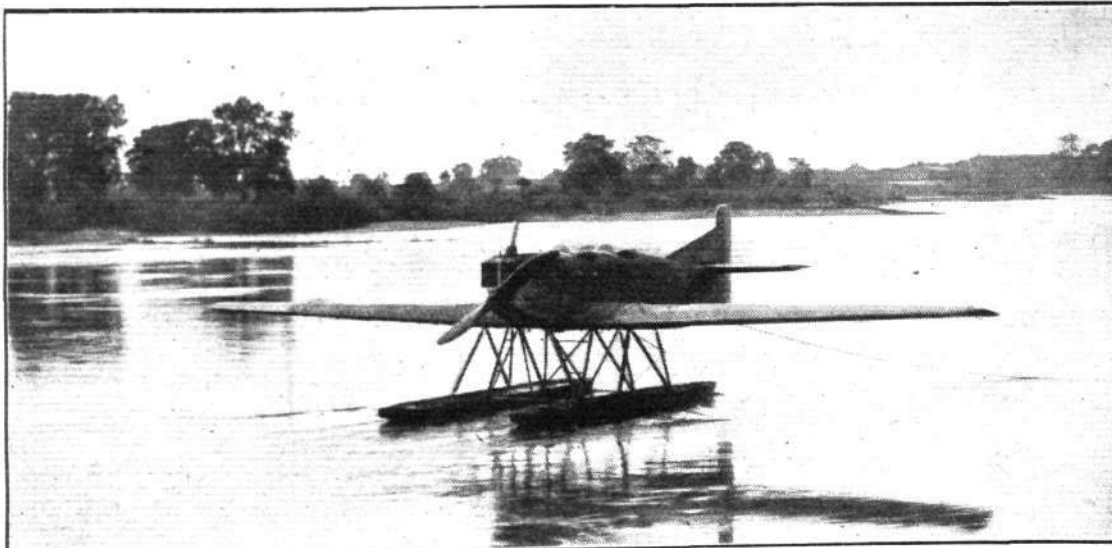
16.32 sq. m. (176 sq. ft.); weight of machine empty, 400 kgs. (880 lbs.); useful load, 220 kgs. (484 lbs.); total loaded weight, 620 kgs. (1,364 lbs.); wing loading, 7.75 lbs./sq. ft.; power loading, 17 lbs./h.p.; maximum speed, 160 kms./h. (100 m.p.h.); range, 525 kms. (325 miles); time to 1,000 m. (3,300 ft.), 6 mins.; ceiling, 3,850 m. (12,600 ft.).

The second machine exhibited by the Dietrich-Gobiet Flugzeugwerk was a parasol monoplane, the "D.P.VIIA," with Siemens five-cylinder radial engine of 55-60 h.p. The construction was very similar to that of the biplane, i.e. steel tube welded fuselage and wood wings. The bracing is in the form of two struts on each side, with a short cabane in the centre. The machine is shown in one of the accompanying photographs, and does not appear to call for any comment. Its main dimensions are: Length, o.a., 5.97 m. (19 ft. 7 ins.); wing span, 9.66 m. (31 ft. 7 ins.); wing area, 13.5 sq. m. (145.5 sq. ft.). The weight empty is 300 kgs. (660 lbs.), and the useful load 210 kgs. (462 lbs.); total loaded weight 510 kgs. (1,122 lbs.); power loading, 18.7 lbs./h.p.; wing loading, 7.7 lbs./sq. ft.; maximum speed, 145 kms./h. (90 m.p.h.); range, 400 kms. (250 miles); time to 1,000 m. (3,300 ft.), 9 mins.; ceiling, 2,500 m. (8,200 ft.).

JUNKERS-WERKE, DESSAU

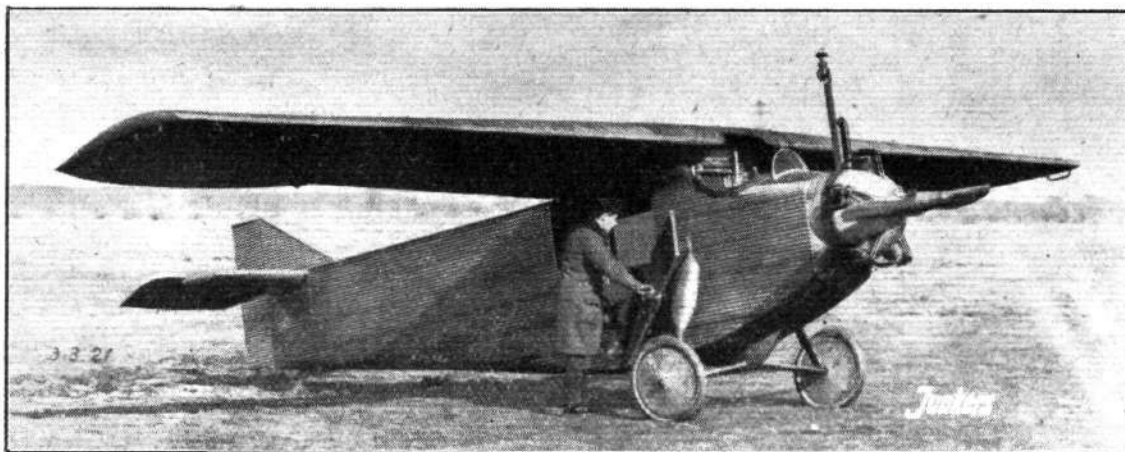
THREE machines were shown by the Junkers-Werke of Dessau, while a fourth, the type "F," was flying from the Vltava river every day during the exhibition, carrying passengers and giving demonstration flights. The type "F" is, perhaps, the Junkers machine best known of all, and is, of course, the low-wing monoplane of all-Duralumin construction which visited Croydon a couple of years ago, when it was described in considerable detail in *FLIGHT*. At Prague the machine was fitted with floats, and was carrying passengers at 100 crowns (about 14s.) a "flip."

The Junkers type "K" is the same machine exhibited at Gothenburg last year. It is a small three-seater, with two passengers accommodated inside a very cramped cabin, in which there is barely sufficient elbow-room for the two passengers, who sit facing one another, while the pilot is



The Junkers type "A" twin-float seaplane. The machine exhibited had a slightly different nose radiator.

The Junkers type "K" three-seater. The machine exhibited had a balanced rudder, and showed other minor alterations.

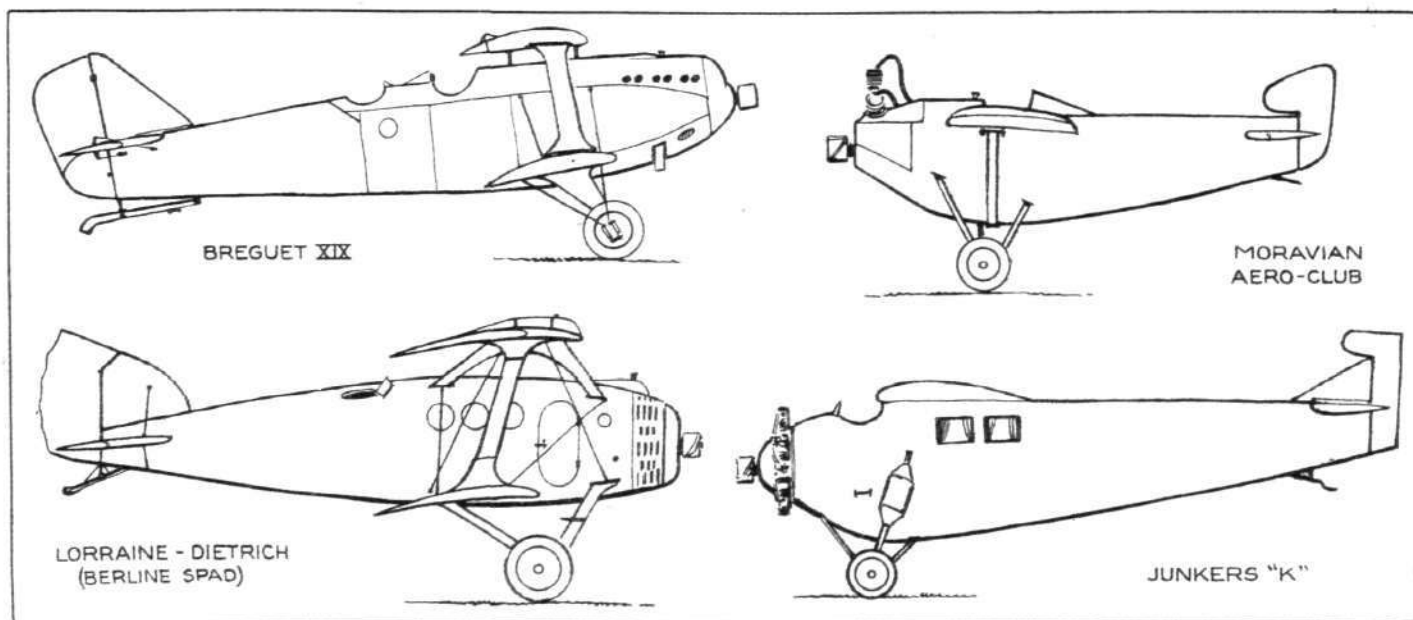


placed ahead of the wing. The engine is a Siemens radial. The type "K" is of usual Junkers construction, with main wing structure of Duralumin tubes, and the fuselage and wings covered with corrugated Duralumin sheet. Minor alterations were noted, such as the substitution of a narrow-chord balanced rudder for the plain rudder fitted at Gothenburg. In other respects the type does not appear to have been altered. The main dimensions are: Length, o.a., 8 m. (26 ft. 3 ins.); wing span, 11 m. (36 ft. 1 in.); wing area, 19 sq. m. (205 sq. ft.); weight of machine empty, 500 kgs. (1,100 lbs.); useful load, 250 kgs. (550 lbs.); total loaded weight, 750 kgs. (1,650 lbs.). The maximum speed is 160 kms./h. (99 m.p.h.).

The type "A" exhibited is a two-seater twin-float seaplane, of usual Junkers construction. The wing is placed low as in the "F" type, but is of much thinner section. The engine is a 160 h.p. Mercedes. The machine is illustrated by a photograph, and does not appear to call for comment. The undercarriage structure supporting the two floats is a somewhat complicated affair, and must offer a considerable amount of resistance. The type "A" has a span of 15.1 m. (49 ft. 6 ins.) and an overall length of 8.4 m. (27 ft. 6 ins.). The wing area is 28 sq. m. (302 sq. ft.) and the total loaded weight is

1,500 kgs. (3,300 lbs.). The machine is stated to have a maximum speed of 170 kms./h. (106 m.p.h.).

The third type exhibited by Junkers was a machine of very unusual design, known as the type "U." Perhaps this machine may best be described as being the "Penguin" shown at Gothenburg, but with a lower plane added, thus turning it into a biplane. The machine shown at Gothenburg was known as the type "T," and the Prague machine, with the lower plane added, is called the type "U." The construction is similar to that described and illustrated in FLIGHT of August 9, 1923. The fuselage is of trapezoidal section, wide at the top and almost coming to a sharp edge at the bottom. The main structure is in the form of Duralumin tubes, and the covering of wings as well as of fuselage is corrugated Duralumin sheet. The engine is one of the new Junkers 6-cylinder vertical air-cooled, a fan in the front covering drawing air into the cowling and discharging it across the cylinder heads. The engine, of which no particulars could be obtained, is rated at 70 h.p. The type "U" has an overall length of 7.5 m. (24 ft. 7 ins.), a span of 13 m. (42 ft. 7 ins.) and a wing area of 32 sq. m. (345 sq. ft.). The total loaded weight is 860 kgs. (1,890 lbs.), so that the wing loading is only 5.5 lbs./sq. ft. Speed, 140 km./h. (87.5 m.p.h.).



Four more silhouettes from Prague. These arrived too late to be included in last week's issue.

Air Survey in British Guiana

MAJ. H. HEMMING, Managing Director of the Aircraft Operating Co., has left for British Guiana for the purpose of reporting on the possibility of establishing aerial routes between Georgetown and the gold and diamond fields—at present, about a fortnight's journey. By air it would take under 2 hours.

The R.A.F. Pageant

A FRENCH squadron from the 2nd Fighting Regiment,

stationed at Strassbourg, will take part in this year's Aerial Pageant at Hendon on June 28. The squadron will be equipped with Nieuport single-seater fighters (29 C.1), and many of the leading Aces of France will take part. The spectacular event of this year's pageant will represent the destruction of an armed merchant cruiser—which has "held up" a tramp steamer loaded with foodstuffs—by torpedo carrying aircraft (Blackburn "Darts"), with the assistance of a Supermarine "Seagull" amphibian (scout) and a formation of Fairey "Flycatcher" ship fighters.

PROGRESS IN THE BIG FLIGHTS

ROUND-THE-WORLD FLIGHTS

As far as the Round-the-World flights are concerned, the Americans only have made progress during the past week, the British crew being still held up at Akyab awaiting the new machine—which, thanks to the very sporting assistance of the Americans, is being transported to them with all speed per United States destroyers. It is hoped that Sqdn.-Ldr. MacLaren will be able to resume his journey early next week.

Squadron Leader MacLaren states that the cause of the accident at Akyab was due to the machine being waterlogged by the torrential rains, this causing ultra expansion and soggianness after contraction, caused, in turn, by the heat of the sandy desert and continual exposure. They had great difficulty in getting the machine to rise when taking off at Akyab, in spite of the fact that the engine was running well. Over the water the machine lost height rapidly, and dropped like a stone when they throttled down to land, and they struck the water with such force that the bottom of the hull was smashed in.

The American team, now under the leadership of Lieut. Smith, prepared to leave Kagoshima—where they arrived on June 2—and Japan for Shanghai on June 4. Lieuts. Wade and Nelson got away at 8.30 a.m., but Lieut. Smith's Douglas ("Liberty") biplane refused to rise, and the leader had to remain behind to set matters aright. The others arrived safely at Shanghai, but Smith was unable to leave before

the next day, when he arrived at Shanghai just after noon. It appears that he had trouble with the floats—the copper binding offering so much resistance that the machine was unable to rise. By the time he had remedied this it was too late to cover the 560 miles to Shanghai. One of the mechanics, Sergt. Ogden, found a commission awaiting him at Shanghai, and was forthwith sworn in as a lieutenant of the United States army.

On June 7 they left Shanghai for Amoy (Indo-China), and, after a stop of two hours at Ping-Pong Island, arrived at Amoy at 4.30 p.m., having covered the 500 odd miles under ideal weather conditions. They left Amoy at 9.17 a.m. the following morning (June 8), and arrived at Hong-Kong (300 miles distant) at 12.30 p.m. Half-way on their journey they encountered rain and fog, but otherwise the weather conditions were fair. They received a very warm welcome from the inhabitants of Hong-Kong, and were met by the Governor, the Colonial Secretary, and the United States Consul-General. The U.S. destroyer *Paul Jones* was at hand to render assistance.

While at Hong-Kong Lieut. Smith took the opportunity of repairing the float of his machine, in which he was assisted by the British Admiralty there. It was stated that they would resume their journey on Tuesday, June 10, but at the time of writing we have not yet received news of their having done so.

Paris-Tokio Flight

LIEUT. PELLETIER D'OISY has completed his wonderful flight from Paris to Tokio. Although his mishap at Shanghai deprived him of his original machine when but 2,300 miles from Tokio, this latter stage was none the less meritorious on account of the flight having been completed on another machine. In fact, quite the reverse, we think, for he had to fly over a by no means easy section of the route on a very much slower and older type of machine. And this he accomplished with almost the same degree of "hustle" that marked the early stages of his flight.

Last week we left Lieut. d'Oisy at Pyong-Yang (or Ping-yang), the old capital of Korea, and on June 4—the day after his arrival—he left this town at 5 a.m., and after flying about 300 miles arrived at Tai-ku (near Fu-san) in South Korea at 8.45 a.m. The next morning he started to cross the Korea Strait to Japan, but owing to thick fog he had to return to Tai-ku. On Sunday (June 8) he made a second attempt, and successfully accomplished the 120 miles over water, landing at Hiroshima on the S.W. coast of Japan. He left again shortly after and reached Osaka by 2 p.m. The final 300 miles to Tokio was completed the following morning, when he left Osaka at 8.30 a.m. and arrived at Tokorosawa aerodrome at 11.30 a.m. Lieut. d'Oisy and his mechanic, Bernard Vésin, have thus completed 11,500 miles in 46 days. As a matter of interest we give herewith a log of the flight with distances between the stages:—

| | | Miles. |
|----------|----------------------|--------|
| April 24 | Paris-Bukarest.. | 1,240 |
| " 25 | Bukarest-Aleppo | 930 |
| " 26 | Aleppo-Baghdad | 460 |
| " 27 | Baghdad-Bushire | 500 |
| " 28 | Bushire-Bandar Abbas | 340 |
| " 29 | Bandar Abbas-Karachi | 700 |



| | | Miles. |
|----------|-----------------------------|--------|
| May 3 | Karachi-Agra .. | 700 |
| " 5 | Agra-Calcutta .. | 750 |
| " 9 | Calcutta-Rangoon .. | 650 |
| " 10 | Rangoon-Bangkok .. | 350 |
| " 11 | Bangkok-Saigon .. | 480 |
| " 13 | Saigon-Hanoi .. | 750 |
| " 18 | Hanoi-Canton .. | 500 |
| " 20 | Canton-Shanghai .. | 800 |
| " 29 | Shanghai-Peking .. | 700 |
| June 2 | Peking-Mukden .. | 400 |
| " 3 | Mukden-Pingyang (Korea) .. | 230 |
| " 4 | Pingyang-Tai-ku (Korea) .. | 300 |
| " 8 | Tai-ku-Osaka (Japan) .. | 425 |
| " 9 | Osaka-Tokorosawa (Tokyo) .. | 295 |
| Total .. | | 11,500 |

Lisbon-Macao Flight

CAPT. BRITO PAIA and Lieut. Beires resumed their flight from Calcutta early on June 4 on their D.H.9A and arrived at Akyab. They started for Rangoon the following morning, but encountered such bad weather that they were forced to return to Akyab. Next day (June 6), however, they fared better, and safely reached Rangoon, having crossed the Arakan mountains at a height of 12,000 ft. The next two days they were detained at Rangoon owing to severe storms, but got away on June 9, arriving at Bankok after a flight of about 5½ hours. While at Rangoon they received a message from the Portuguese Government promoting each to the rank of Major and also receiving the Order of the Tower and Sword. Their mechanic, M. Gonvino, was also promoted to the rank of lieutenant.

Restored Air Mail Services

THE Postmaster-General announces the restoration, as from Tuesday, June 10, of direct air mail services by morning aeroplane from Croydon to (a) Brussels, serving all Belgium, and (b) Berlin, with a call at Hanover, serving Central and Eastern Germany and also countries beyond. These services will be of special benefit for correspondence (of all classes) posted in the provinces in time for despatch to London by ordinary night mail. The air mail to Brussels will be closed at the General Post Office, London, at 7.15 a.m. each week-day, and will be due to reach the Brussels Post Office at about 1.0 p.m. Letters included in it should normally be delivered in Brussels the same afternoon and in Antwerp the same evening. The special fee payable, in addition to ordinary foreign postage, will be 2d. per oz. The air mail to Hanover and Berlin will be closed at the General Post Office, London,

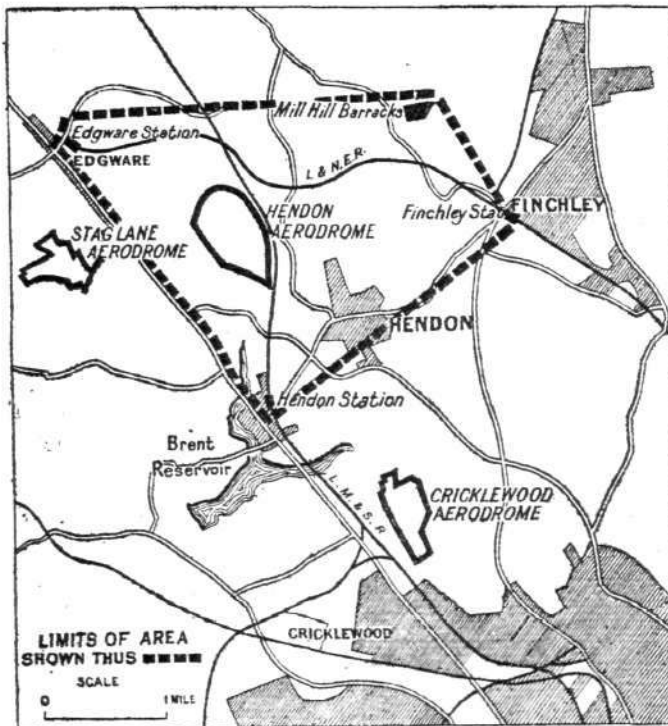
at 6.0 a.m. each week-day, and will be due to reach Hanover and Berlin Post Offices at about 3.0 p.m. and 5.0 p.m. respectively the same day. This air mail offers, for express letters, delivery in Hanover and Berlin the same afternoon or evening, and for non-express letters, accelerated delivery next day at most places in Northern Germany beyond Hanover, e.g., Hamburg, Berlin and Leipsic, and in Bavaria, e.g., Munich. By connecting with night mail trains onward from Berlin, it also offers a useful acceleration of letters for Czechoslovakia, Austria, Hungary, Poland, Russia and the East Baltic States. The special fee payable, in addition to ordinary foreign postage, will be 3d. per oz. This morning air mail to Hanover and Berlin is additional to the evening air mail from London via Rotterdam to Hamburg, recently announced (serving Hamburg and district) and to the existing morning air mail to Cologne (serving the occupied parts of Germany).

AIR MINISTRY NOTICES

NOTICE TO AIRMEN

Royal Air Force Aerial Pageant, Hendon, June 28, 1924

It is notified that, in view of the large number of Service aircraft which will be employed at Hendon aerodrome from Wednesday, June 25, till Saturday, June 28, 1924, both dates inclusive, in connection with the Aerial Pageant, civil air-



craft are warned on those dates against landing at this aerodrome and against flying within the area shown on the plan appended, unless consent has previously been obtained in writing from the Secretary, Air Ministry, to whom application should be made.

Cricklewood and Stag Lane aerodromes are suitable for

the landing of civil aircraft conveying persons by air to the Pageant, the road distances from Hendon aerodrome being $3\frac{1}{4}$ and $1\frac{1}{2}$ miles respectively.

(No. 48 of 1924.)

NOTICES TO GROUND ENGINEERS

Avro 504K Type Aircraft: Lift Wire Fittings

1. The attention of Ground Engineers is directed to the necessity of ensuring that the wiring plate and socket taking the duplicate lift wires at the upper end of the outer rear interplane struts (port and starboard) on Avro 504K aircraft are of standard pattern.

2. The standard fitting is made up of two plates, item 1.F.103 and item 18.F.80. The first, in 14 S.W.G. Plate, carries the socket and wiring lugs, and is reinforced on its upper face by the second item in 16 S.W.G. plate, but cases have come to notice in which this part of the fitting has consisted of a single plate only.

3. All licensed Avro 504K aircraft should be examined forthwith, and any single plate fittings found should be replaced by standard fittings.

4. No Certificate of Airworthiness will be issued or existing Certificate of Airworthiness renewed in respect of any aircraft of this type unless the standard fittings are incorporated.

5. *Cancellation.*—Notice to Ground Engineers No. 5 of 1922 is cancelled.

(No. 7 of 1924.)

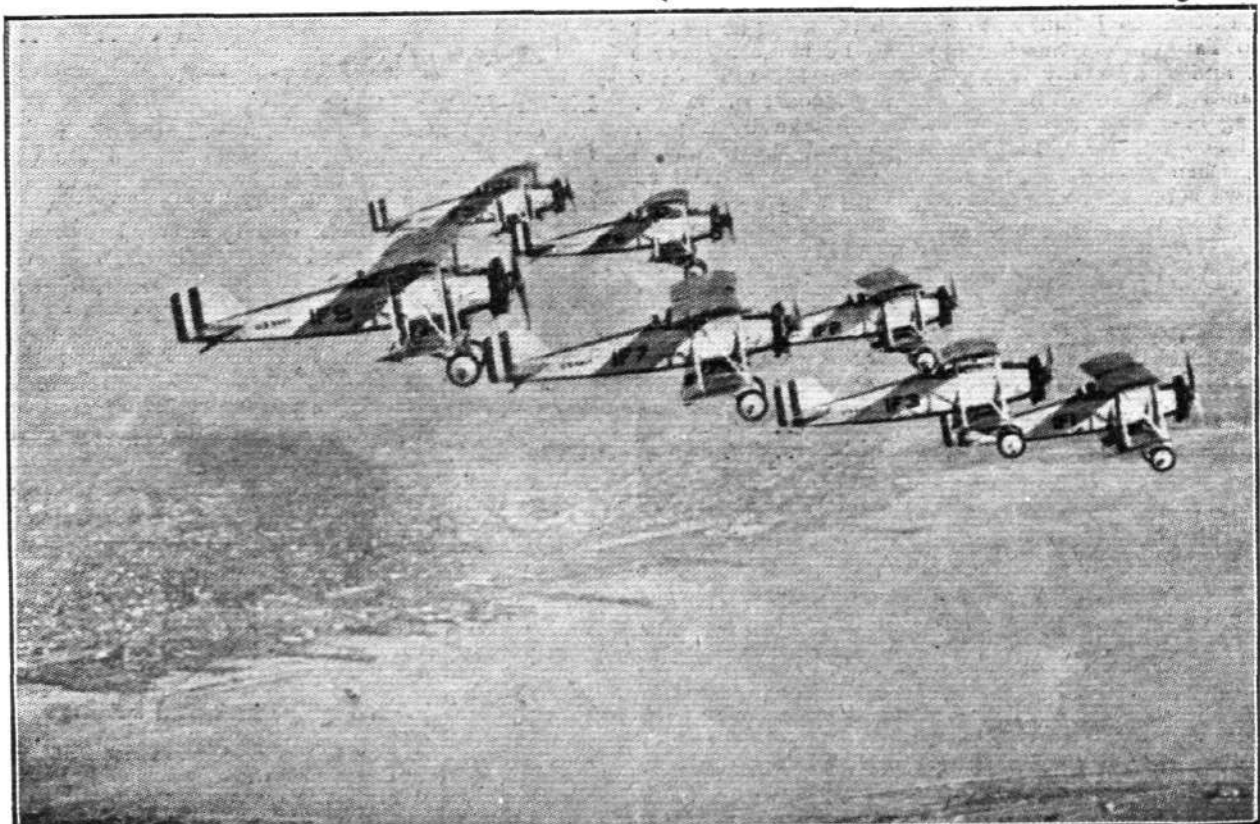
Bristol F.2.B. and Bristol Tourer Type Machines—Strengthening of I-Section Spars

1. The attention of the Ground Engineers is directed to the necessity of ensuring that in cases in which the front spars of top main planes and top centre sections are of I-section, they shall be strengthened by glueing and screwing $\frac{1}{8}$ in. three-ply to the underside of the top centre plane and of the inner bays of the top main planes. The three-ply should extend from the leading edge to the rear of the front spar.

2. Planes having I-section spars can readily be identified by the examination of the exposed ends of the spars.

3. No Certificate of Airworthiness will be issued or Certificate of Airworthiness renewed in respect of any aircraft of above types with I-section spars unless these have been strengthened in the manner indicated.

(No. 8 of 1924.)



AMERICAN FORMATION FLYING: Fighting Squadron One, Aircraft Squadrons, U.S. Battle Fleet, flying over San Diego harbour. The machines are "T.31" fighters, fitted with 200 h.p. Wright (Lawrence) "J.1" radial air-cooled engines.

THE ROYAL AIR FORCE

London Gazette, June 3, 1924

General Duties Branch.

G. H. Bennett is granted short service commn. as Flying Offr., with effect from, and with seny. of May 23. The following Pilot Offrs. are promoted to rank of Flying Offr. (June 2):—W. J. E. Rodwell, J. M. Darroch, and E. C. Roark. Flying Offr. C. B. B. Maturin resigns his permanent commission (June 4). The short-service commn. of Pilot Offr. on probation V. M. Callen is terminated on cessation of duty (June 1).

Medical Branch.

R. T. F. Grace, M.B., is granted a short-service commn. as Flying Offr.,

with effect from and with seny. of May 19; F. S. S. Whiter (temp. Lt., Dental Surg., General List Army) is granted temp. commn. as Flying Offr. on attach. to R.A.F. (May 23). He will continue to receive emoluments from Army funds.

Reserve of Air Force Officers.

H. S. Robertson is granted a commn. in Class A, General Duties Branch, as a Flying Offr. on probation (June 3); H. P. Bridges is granted a commn. in Class B. Stores Branch, as Flight Lt. (June 3).

The commn. of Pilot Offr. on probation T. J. James is terminated on cessation of duty (April 11).

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

General Duties Branch

Flight Lieutenants: D. K. Cameron, to R.A.F. Base, Leuchars. 26.5.24. W. G. Preston, D.F.C., to H.M.S. "Eagle." 26.5.24.

Flying Officers: H. R. B. Howell, to R.A.F. Base, Leuchars. 10.6.24. G. McClintock, to R.A.F. Base, Leuchars. 4.6.24. A. C. Tremellen, to Central Flying Sch., Upavon. 30.5.24.

Pilot Officer B. J. Finn, to No. 3 Sqdn., Upavon. 4.6.24.

Stores Branch

Flight Lieutenant N. Robertson, to No. 1 Stores Depot, Kidbrooke. 6.6.24. **Flying Officers:** R. T. Rich, to No. 19 Sqdn., Duxford. 11.6.24. B. L. Blofeld (Accountant), to No. 29 Sqdn., Duxford. 16.6.24.

Pilot Officer R. G. A. Vallance, to No. 1 Stores Depot, Kidbrooke, on appointment to a Permanent Commn. for course of instruction in storekeeping. 19.5.24.

Medical Branch

Flying Officers: F. W. G. Smith, M.B., B.A., to R.A.F. Depot. 3.6.24. A. A. Townsend, M.B., to Research Lab. and Medical Officers' School of Instruction, Hampstead, for short course. 27.5.24.

IN PARLIAMENT

R.A.F. Motor Vehicles

BRIGADIER-GENERAL MAKINS, on June 5, asked the Under-Secretary of State for Air the number of light cars, ambulances and motor vehicles generally, other than commercial cars and lorries under the control of his Department, both at home and abroad, in all the theatres of war at the date of the Armistice, and the number of such light cars, etc., now in the possession of the Air Ministry?

Mr. Leach: the Particulars are as follow:—

| Type of vehicle. | Number possessed in November, 1918. | Number now possessed. |
|------------------------------------|-------------------------------------|-----------------------|
| Ambulances | 297 | 141 |
| Motor-cycles | 1,922 | 225 |
| Motor-cycles with sidecars | 2,622 | 399 |
| Touring cars, etc. | 1,466 | 277 |

R.A.F. Flying Risks

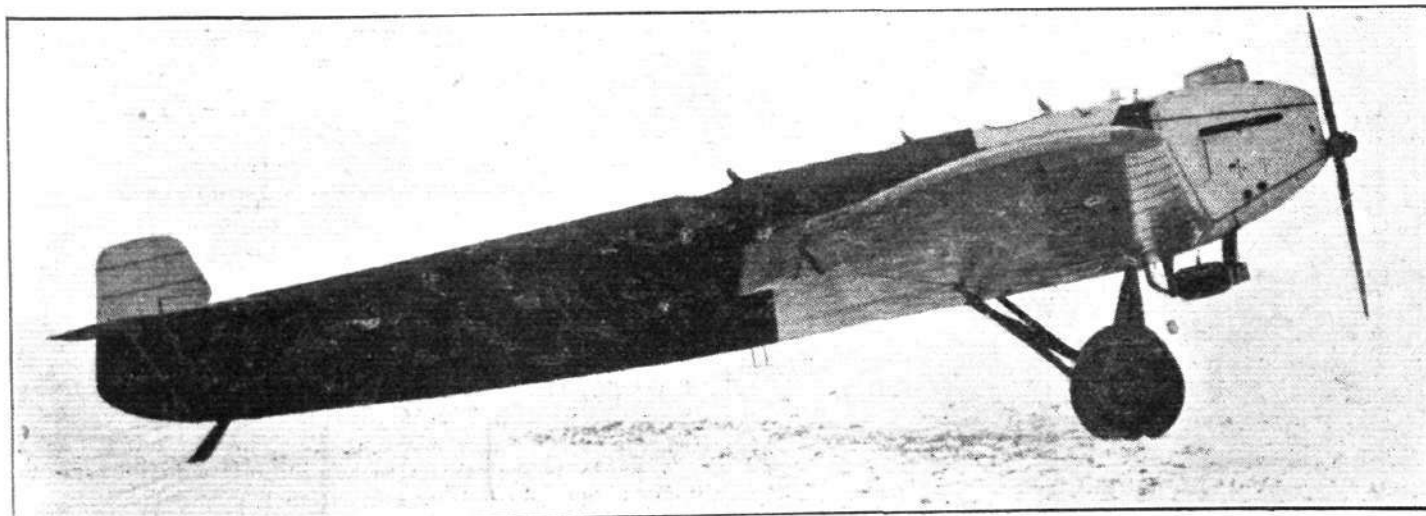
LIEUT.-COLONEL MOORE-BRABAZON, on June 6, asked the Under-Secretary of State for Air if he will state what proportion of the salaries of the officials employed in the directorate of research is supposed to be compensation for flying risks; whether officers in this directorate have been instructed by their superior officers not to undertake flying duties because such risks are not covered; and whether he will cause an investigation to be made as to the stipulation that flying duties shall be undertaken in the normal course of duties, seeing that the pay of these technical officers is very much lower than that of flying officers in the Royal Air Force?

Mr. Leach: In answer to the first part of the question, the salaries of the officials referred to are not divisible into proportions corresponding to the flying and the non-flying parts of their duties, but represent the fair remuneration for their work as a whole, including flying risks. In answer to the second part, I have no information that any such instruction has been given, and cannot in any case admit the soundness of the reason alleged for it, since, as I informed the hon. and gallant member on April 15 last, the risk is in fact covered. In answer to the last part of the question, the stipulation referred to, as I stated in the same reply, is contained in the officers' contracts of Service, and I do not understand, therefore, what there would be to investigate. Many of them are paid at a higher rate than flying officers of the Air Force.

Officers' Pay

SIR C. YATES asked the Under-Secretary of State for Air if he can state the calculations on which the reduction of 27½ per cent. of the variable 20 per cent. of the pay of officers of the Royal Air Force is based, showing how the amount is arrived at and what items have been taken into consideration?

Mr. Leach: The reduction of 27½ per cent. upon the variable 20 per cent. of the pay represents the fall that has taken place in the cost of living since July, 1919. In that month the cost of living was approximately 107½ per cent. above that for July, 1914; the corresponding average figure for the six months preceding March, 1924, was 77 per cent., which shows that the cost of living has fallen 30½ points on 107½, or more than 27½ points on 100. As regards the items taken into consideration, I would refer the hon. and gallant member to the replies given to him by my hon. friend the Parliamentary Secretary to the Admiralty on May 14 and my right hon. friend the Secretary of State for War on May 13.



THE FOKKER T-III MONOPLANE: The machine shown above is a three-seater low-wing cantilever monoplane, which is fitted with either a 450 h.p. Napier "Lion" or a 360 h.p. Rolls-Royce "Eagle." Several of this type have been—or are being—constructed for the Portuguese Government, and it was the type of machine which Admiral Continho and Commdr. Sacadura Cabral selected for their world-flight. If required, the wheels may be replaced by two floats. Its span is 69 ft. 6 ins.; overall length, 42 ft. 6 ins.; wing area, 775 sq. ft.; and speed 111·6 m.p.h.

IMPERIAL AIRWAYS, LTD.

DURING last week-end the prospectus of the above national undertaking was published. As our readers are aware, this company has been formed for the purpose of establishing, with the financial assistance of the Treasury, an air transport service in Europe in accordance with the recommendations of the Civil Air Subsidies Committee as set out in their report of February, 1923. The company has a share capital of £1,000,000, of which £500,000 in shares of £1 each at par is now issued. Provision has been made, as regards the aircraft used and the persons employed on British territory, to make the concern a strictly British undertaking, and it is laid down that shares will be allotted only to British subjects. The contract with His Majesty's Government provides for financial assistance of £1,000,000, spread over 10 years, commencing with £137,000 per annum for the first four years. The new company is acquiring as going concerns the air transport businesses until recently carried on by Handley Page Transport, Ltd., Instone Air Line, Ltd., Daimler Hire, Ltd., and the British Marine Air Navigation Co., Ltd. The company's board includes the leading directors of these four operating companies, viz., Sir Samuel Instone (Instone Air Line), Mr. Frank Searle (Daimler Hire, Ltd.), who is the managing director, Lieut.-Col. John Burnett-Lennard (Handley Page Transport, Ltd.), Mr. Robert Scott-Paine (British Marine Air Navigation Co., Ltd.), as well as Sir John G. Beharrell (managing director of the Dunlop Rubber Co.), and Sir Eric Geddes, who has been appointed chairman. In addition, Sir Herbert Hambling (deputy chairman of Barclay's Bank), and Maj. John W. Hills (late Financial Secretary to His Majesty's Treasury), will join the directorate as nominees of the Government.

The purchase price for the business acquired is stated at £148,750. The payments under agreement to the various companies taken over as going concerns by the new company are provided for as follows:—

(a) Under Contract No. 1 to Handley Page Transport, Ltd., the sum of £51,500, payable as to the sum of £17,166 in cash and as to the sum of £34,334 by the allotment to Handley Page Transport, Ltd., or its nominee or nominees of 34,334 fully paid shares in the capital of the Company.

(b) Under Contract No. 2 to Instone Air Line, Ltd., the sum of £46,000, payable as to the sum of £15,333 in cash, and as to the sum of £30,667 by the allotment to Instone Air Line, Ltd., or its nominee or nominees of 30,667 fully paid shares in the capital of the Company.

(c) Under Contract No. 3 to Daimler Hire, Ltd., the sum of £30,000, payable as to the sum of £10,000 in cash, and as to the sum of £20,000 by the allotment to Daimler Hire, Ltd., or its nominee or nominees, of 20,000 fully paid shares in the capital of the Company.

(d) Under Contract No. 4 to British Marine Air Navigation Company, Ltd., the sum of £21,250, payable as to the sum of £7,083 in cash and as to the sum of £14,167 by the allotment to British Marine Air Navigation Company, Ltd., or its nominee or nominees of 14,167 fully paid shares in the capital of the Company.

No part of such purchase price is regarded as payable in respect of goodwill.

It is provided that the profits of the company, after payment of 10 per cent. on the paid-up capital, are to be divided as follows: One-third to Government for repayment of the subsidy; one-third to reserve; and one-third to be available for additional dividend.

The prospectus states that "There are no promotion profits of any kind and the British, Foreign and Colonial Corporation, Ltd., in view of the National importance of the business, has undertaken the whole of the work of promoting the Company and procuring the underwriting of the 500,000 shares now issued in return for actual out-of-pocket expenses only."

The Secretary is Mr. Sidney H. Dismore, and the registered offices are 43, Frederick's Place, Old Jewry, E.C. 2.

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The "Olympic" Model Glider

In our issue of November 23, 1923, we described the "Olympic" catapult model glider—an ingenious scientific "toy." The Alma Trading Co., 68, New Oxford Street, who market this novelty, received, on June 5 last, a letter from one of our readers in Warsaw, Poland, asking for quotations, but omitting his name and address. If this reader should happen to read this paragraph, will he please forward his name and address to us or the above firm, and his inquiries will be attended to forthwith?

SOCIETY OF MODEL AERONAUTICAL ENGINEERS

At the request of competitors the date of the "Felix Kelly," "Sir John Shelley," and "D. H. Pilcher" Challenge Cup Competitions has been changed.

The Competitions will now be held on Wimbledon Common, starting at 3.30 p.m., on Saturday, June 28.

A. E. JONES, Hon. Sec.

PUBLICATIONS RECEIVED

Notes on Iron and Steel. By Brig.-Gen. R. K. Bagnall-Wild, C.M.G., C.B.E. London: H.M. Stationery Office, Kingsway, W.C. Price 1s. 6d. net.

Twenty-Second Annual Report. Transactions of the Year 1923. The Society of Motor Manufacturers and Traders, Ltd., 83, Pall Mall, London, S.W. 1.

NEW COMPANIES REGISTERED

PAGET'S (ALDERSGATE), LTD., 48, Aldersgate Street, E.C.—Capital £1,000, in £1 shares. Marquee, tent, aeronautical hangar manufacturers and contractors, etc. First directors:—T. W. Nickalls, Mrs. G. M. Lebish, and G. L. Walsh.

WEST INDIAN AERIAL TRANSPORT CO., LTD.—Capital £30,000, in 29,000 12 per cent. cumulative preferred ordinary shares of £1 each and 20,000 deferred shares of 1s. each. Objects: To carry on in South America, the West Indies, or elsewhere, the business of carriers of passengers and goods by air, land or water, manufacturers of and dealers in aeroplanes, seaplanes, flying machines, airships, balloons, etc. First directors:—Viscount Curzon, M.P., Sir Alfred H. H. Matthews, Kt., A. E. Turner, B.A., and Major E. W. Seale, R.E., O.B.E. Solicitor: C. C. Singleton, 18-19, Ironmonger Lane, E.C.

AERONAUTICAL PATENT SPECIFICATIONS

Abbreviations: Cyl. = cylinder; I.C. = internal combustion; m. = motor. The numbers in brackets are those under which the Specifications will be printed and abridged, etc.

APPLIED FOR IN 1922

Published June 12, 1924

30,677. D. A. A. Shepperson. Aircraft for advertising purposes. (215,797.)
31,704. RAUL, MARQUIS OF PATERAS PESCARA. I.C. engines. (189,150.)

APPLIED FOR IN 1923

Published June 12, 1924

7,127. L. W. BROWN. Toy helicopters. (215,894.)
9,256. DR. A. ROHRBACH. Flying-boats. (215,913.)
9,947. H. NAATZ AND LUSTUV LUFTFAHRTECHNISCHE STUDIEN-UND VERWERTUNGS-GES. Non-rigid airships. (215,923.)
9,948. H. NAATZ AND LUSTUV LUFTFAHRTECHNISCHE STUDIEN-UND VERWERTUNGS-GES. Gas-containers of airships. (215,924.)
10,561. H. O. SHORT. Hydro-aeroplanes. (215,931.)
14,256. SOC. DES AEROPLANES H. ET M. FARMAN. Brakes. (199,710.)
14,614. BOULTON AND PAUL, LTD., AND J. D. NORTH. Resilient telescopic struts. (215,982.)
15,419. INGERSOLL-RAND CO. Rotary cylinder motors. (215,991.)
18,575. CRANKLESS ENGINES (AUS.) PROPRIETARY, LTD. Air-cooling of cylinders of I.C. engines. (201,171.)
31,232. E. L. DOUHERET. Starter for aeroplane engines. (208,538.)

If you require anything pertaining to aviation, study "FLIGHT'S" Buyers' Guide and Trade Directory, which appears in our advertisement pages each week (see page xviii).

NOTICE TO ADVERTISERS

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